Abstract

Method and circuit for reducing the crest factor

The invention relates to a method for reducing the
crest factor, comprising the following method steps:

(a)   IFFT transformation of a data symbol to be
      transmitted;

(b)   looking for all peak values within a frame of the
      IFFT-transformed data symbol the amount of which
      is above a predetermined threshold;

(c)   providing a sample correction function;

(d)   allocating a scaling and phase rotation to the
      sample correction function according to the
      amplitude and position of the peak values found;

(e)   generating a correction signal in the frequency
      domain from a linear combination of rotated and
      scaled vectors according to the scaling and
      position determined;

(f)   modifying, particularly reducing the peak value of
      the data symbol to be transmitted by subtracting
      the correction signal, and

(g)   IFFT transformation of the peak-value-modified
      data symbol into the time domain.

The invention also relates to a circuit for reducing
the crest factor.

Figure 4